

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1-10 are requested to be cancelled.

Claims 11-17 have been added.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-17 are now pending in this application.

Claim 1 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Taylor (U.S. Patent No. 3,204,663) and Fink (U.S. Patent No. 3,416,600). Claim 2 stands rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Taylor. Claims 2-3 and 8 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Fink. Claims 4-7 and 9-10 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Okada et al. (U.S. Patent No. 5,088,193) in view of Buchanan et al. (EP Patent No. 900,605). Applicants respectfully traverse these rejections for the reasons set forth below.

Claims 1-10 have been cancelled herein. New claims 11-17 have been presented. New claim 11 includes the limitations of canceled claims 1 and 3. Claim 12 corresponds to original claim 2. Claims 14-17 correspond to canceled claims 4-7.

Rejections under 35 U.S.C. §102(b) Should Be Withdrawn

Claim 1 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Taylor and Fink. In view of the claim amendments, it is respectfully submitted that the rejection should be withdrawn.

It is well settled that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See generally MPEP §2131. Here, Taylor and Fink fail to disclose a header having one or more slots for the insertion of a flat tubes where the ratio ($D/2s$) of the tube's outside radius ($D/2$) to the tube wall thickness (s) is less than 5, the ratio ($D/D1$) of the tube outside diameter (D) outside of the slot areas to the tube transverse dimension ($D1$) is between 1.02 and 1.5 in the slot areas, and a mechanical thinning is provided at the places at which the slot or slots as recited in independent claim 11. Therefore, these rejections should be withdrawn.

Rejections under 35 U.S.C. §103(a) Should Be Withdrawn

Claim 2 stands rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Taylor. Claims 2-3 and 8 rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Fink. Claims 4-7 and 9-10 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Okada et al. in view of Buchanan et al.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 USPQ 580 (CCPA 1974). See MPEP §2143.03. As set forth herein, the references relied upon by the Examiner fail to disclose or suggest the instantly claimed invention, as set forth in claims 11-17.

With respect to the rejections of claims 2-3 and 8, there is nothing in Taylor or Fink which discloses or suggests the instantly claimed header having one or more slots for the insertion of a flat tubes where the ratio ($D/2s$) of the tube's outside radius ($D/2$) to the tube wall thickness (s) is less than 5 and the ratio ($D/D1$) of the tube outside diameter (D) outside of the slot areas to the tube transverse dimension ($D1$) is between 1.02 and 1.5 in the slot areas. Moreover, neither Taylor or Fink disclose or suggest a header where a mechanical thinning is provided at the places at which the slot or slots are to be made. Furthermore, neither of these references disclose or suggest a header which is made from a tube which is not made beforehand by a rolling and welding process from a piece of sheet metal. For at least these reasons, claims 11-13 are patentable over both Taylor and Fink.

With respect to the rejection of claims 4-7 and 9-10 as allegedly being obvious over Okada in view of Buchanan, Okada does not disclose or teach the claimed method as set forth in claim 14. Okada does not disclose or suggest forming a header with one or more slots creased by stamping without internal dies or high-pressure internal shaping by bending a flat piece to form a header blank, open along a longitudinal gap, and then soldered shut or welded shut the longitudinal gap, followed by putting the slot or slots into the header blank. As recognized by the Examiner, Okada does not disclose forming the header from a flat sheet, as claimed. Okada also does not disclose or suggest bending a flat sheet, open along a longitudinal gap and then soldering or welding shut the longitudinal gap, as claimed. Buchanan does not cure the deficiencies of Okada.

While Buchanan does show a heat exchanger that may be formed from a flat sheet, Buchanan specifically teaches that the apparatus is formed by a pressure forming press 38 which includes at least a pair of inner dies 42, 44. (See, Col. 7, lines 9-19). In the method of Buchanan, the blank is highly pressurized and the inner surface of the blank is bulged out into the inner surface of the inner dies 42, 44. (See. Col. 7, lines 27-37). Buchanan does not disclose or suggest the instantly claimed method for the manufacturing a header with one or more slots creased by stamping "without internal dies or high-pressure internal shaping" as set forth in claim 14. If anything, Buchanan teaches away from the instantly claimed invention. As such, the person having ordinary skill in the art would not have been motivated to combine the references relied upon by the Examiner to arrive at the instantly claimed invention. For at least these reasons, claim 14 is patentable over Okada in view of Buchanan. For at least these reasons, claims 15-17 are patentable over Okada in view of Buchanan.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment,

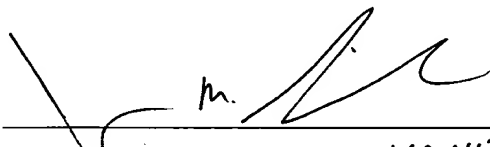
to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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